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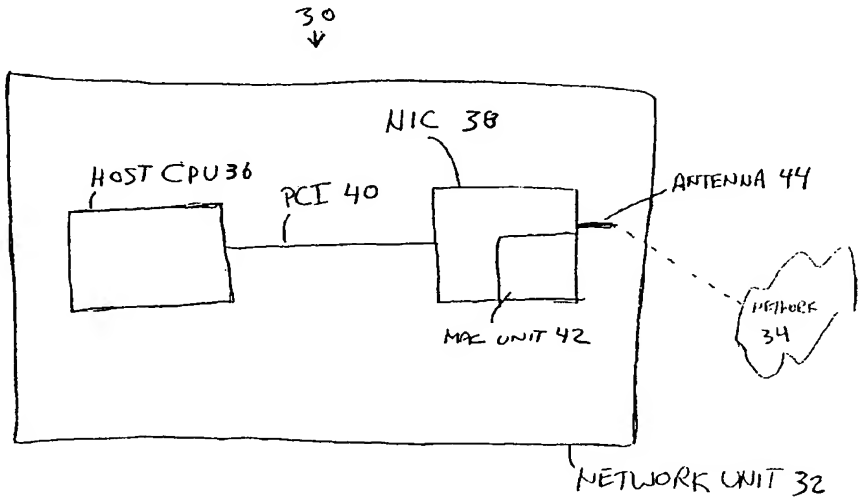
(54) Title: HARDWARE MAC



(57) Abstract: A Hardware MAC (Media Access Control) unit implements time-critical functions according the 802.11 standard for telecommunications, thereby enhancing system performance. The MAC layer includes three sub-layers: MLME (MAC Sublayer Management Entity), which connects the MAC unit with the host CPU, FTM (Frame Transition Manager), which connects the MAC unit with the network, and FLPM (Frame Level Protocol Manager), which internally connects the MLME sub-layer with the FTM sub-layer. In particular, the FLPM manager includes time-critical and non-time-critical functions that are customarily implemented in software on the MAC by a MAC CPU (Central Processing Unit). The hardware MAC implements time-critical FLPM functions in hardware on the MAC and implements non-time-critical FLPM functions in software on the host CPU so that requirements for processing software on the MAC preferably may be altogether eliminated or alternatively may be substantially reduced.

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